W-J Sun

List of Publications by Year
in descending order

87 papers	1,770 citations	236925 25 h-index	330143 37 g-index
97 all docs	97 docs citations	97 times ranked	1206 citing authors

#	Article	IF	Citations
1	Electromagnetic energy conversion at dipolarization fronts: Multispacecraft results. Journal of Geophysical Research: Space Physics, 2015, 120, 4496-4502.	2.4	86
2	Observations of kineticâ€size magnetic holes in the magnetosheath. Journal of Geophysical Research: Space Physics, 2017, 122, 1990-2000.	2.4	70
3	Solar wind entry into the high-latitude terrestrial magnetosphere during geomagnetically quiet times. Nature Communications, 2013, 4, 1466.	12.8	68
4	Cluster and TC-1 observation of magnetic holes in the plasma sheet. Annales Geophysicae, 2012, 30, 583-595.	1.6	64
5	Current structures associated with dipolarization fronts. Journal of Geophysical Research: Space Physics, 2013, 118, 6980-6985.	2.4	61
6	Spatial distribution of Mercury's flux ropes and reconnection fronts: MESSENGER observations. Journal of Geophysical Research: Space Physics, 2016, 121, 7590-7607.	2.4	55
7	Fieldâ€aligned currents associated with dipolarization fronts. Geophysical Research Letters, 2013, 40, 4503-4508.	4.0	53
8	Mercury's crossâ€tail current sheet: Structure, Xâ€line location and stress balance. Geophysical Research Letters, 2017, 44, 678-686.	4.0	53
9	MESSENGER Observations of Disappearing Dayside Magnetosphere Events at Mercury. Journal of Geophysical Research: Space Physics, 2019, 124, 6613-6635.	2.4	53
10	MESSENGER observations of magnetospheric substorm activity in Mercury's near magnetotail. Geophysical Research Letters, 2015, 42, 3692-3699.	4.0	50
11	Statistical study of the storm time radiation belt evolution during Van Allen Probes era: CMEâ€versus CIRâ€driven storms. Journal of Geophysical Research: Space Physics, 2017, 122, 8327-8339.	2.4	50
12	EMHD theory and observations of electron solitary waves in magnetotail plasmas. Journal of Geophysical Research: Space Physics, 2014, 119, 4281-4289.	2.4	46
13	An EMHD soliton model for smallâ€scale magnetic holes in magnetospheric plasmas. Journal of Geophysical Research: Space Physics, 2016, 121, 4180-4190.	2.4	38
14	Cluster-C1 observations on the geometrical structure of linear magnetic holes in the solar wind at 1 AU. Annales Geophysicae, 2010, 28, 1695-1702.	1.6	37
15	MMS observations of electron scale magnetic cavity embedded in proton scale magnetic cavity. Nature Communications, 2019, 10, 1040.	12.8	35
16	Threeâ€Dimensional Magnetic Reconnection With a Spatially Confined Xâ€Line Extent: Implications for Dipolarizing Flux Bundles and the Dawnâ€Dusk Asymmetry. Journal of Geophysical Research: Space Physics, 2019, 124, 2819-2830.	2.4	34
17	Electric fields associated with dipolarization fronts. Journal of Geophysical Research: Space Physics, 2014, 119, 5272-5278.	2.4	33
18	Magnetospheric Multiscale Observations of Electron Scale Magnetic Peak. Geophysical Research Letters, 2018, 45, 527-537.	4.0	33

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19	Electron Dynamics in Magnetosheath Mirrorâ€Mode Structures. Journal of Geophysical Research: Space Physics, 2018, 123, 5561-5570.	2.4	33
20	The Magnetic Field Structure of Mercury's Magnetotail. Journal of Geophysical Research: Space Physics, 2018, 123, 548-566.	2.4	31
21	Propagation of small size magnetic holes in the magnetospheric plasma sheet. Journal of Geophysical Research: Space Physics, 2016, 121, 5510-5519.	2.4	30
22	MMS Study of the Structure of Ionâ€Scale Flux Ropes in the Earth's Crossâ€Tail Current Sheet. Geophysical Research Letters, 2019, 46, 6168-6177.	4.0	30
23	MESSENGER observations of cusp plasma filaments at Mercury. Journal of Geophysical Research: Space Physics, 2016, 121, 8260-8285.	2.4	29
24	Coupling between Mercury and its nightside magnetosphere: Crossâ€tail current sheet asymmetry and substorm current wedge formation. Journal of Geophysical Research: Space Physics, 2017, 122, 8419-8433.	2.4	29
25	MESSENGER observations of the energization and heating of protons in the nearâ€Mercury magnetotail. Geophysical Research Letters, 2017, 44, 8149-8158.	4.0	27
26	Studying Dawnâ€Dusk Asymmetries of Mercury's Magnetotail Using MHDâ€EPIC Simulations. Journal of Geophysical Research: Space Physics, 2019, 124, 8954-8973.	2.4	26
27	Magnetospheric ULF waves with increasing amplitude related to solar wind dynamic pressure changes: The Time History of Events and Macroscale Interactions during Substorms (THEMIS) observations. Journal of Geophysical Research: Space Physics, 2015, 120, 7179-7190.	2.4	25
28	Flux Transfer Event Showers at Mercury: Dependence on Plasma Î² and Magnetic Shear and Their Contribution to the Dungey Cycle. Geophysical Research Letters, 2020, 47, e2020GL089784.	4.0	23
29	Plasma Sheet Pressure Variations in the Nearâ€Earth Magnetotail During Substorm Growth Phase: THEMIS Observations. Journal of Geophysical Research: Space Physics, 2017, 122, 12,212.	2.4	22
30	MESSENGER Observations of Fast Plasma Flows in Mercury's Magnetotail. Geophysical Research Letters, 2018, 45, 10,110.	4.0	22
31	MMS Observations of Plasma Heating Associated With FTE Growth. Geophysical Research Letters, 2019, 46, 12654-12664.	4.0	22
32	MESSENGER observations of AlfvÃ©nic and compressional waves during Mercury's substorms. Geophysical Research Letters, 2015, 42, 6189-6198.	4.0	19
33	Analysis of Turbulence Properties in the Mercury Plasma Environment Using MESSENGER Observations. Astrophysical Journal, 2020, 891, 159.	4.5	19
34	Review of Mercuryâ€™s dynamic magnetosphere: Post-MESSENGER era and comparative magnetospheres. Science China Earth Sciences, 2022, 65, 25-74.	5.2	19
35	Transpolar arc observation after solar wind entry into the highâ€latitude magnetosphere. Journal of Geophysical Research: Space Physics, 2015, 120, 3525-3534.	2.4	18
36	Earth Wind as a Possible Exogenous Source of Lunar Surface Hydration. Astrophysical Journal Letters, 2021, 907, L32.	8.3	18

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37	Plasma and Magnetic-Field Characteristics of Magnetic Decreases in the Solar Wind at 1 AU: Cluster-C1 Observations. Solar Physics, 2014, 289, 3175-3195.	2.5	17
38	Propagation characteristics of young hot flow anomalies near the bow shock: Cluster observations. Journal of Geophysical Research: Space Physics, 2015, 120, 4142-4154.	2.4	17
39	Statistical research on the motion properties of the magnetotail current sheet: Cluster observations. Science China Technological Sciences, 2010, 53, 1732-1738.	4.0	15
40	Dayside magnetospheric ULF wave frequency modulated by a solar wind dynamic pressure negative impulse. Journal of Geophysical Research: Space Physics, 2017, 122, 1658-1669.	2.4	15
41	Dissipation of Earthward Propagating Flux Rope Through Reâ€reconnection with Geomagnetic Field: An MMS Case Study. Journal of Geophysical Research: Space Physics, 2019, 124, 7477-7493.	2.4	15
42	THEMIS observation of a magnetotail current sheet flapping wave. Science Bulletin, 2014, 59, 154-161.	1.7	14
43	Transport of Mass and Energy in Mercury's Plasma Sheet. Geophysical Research Letters, 2018, 45, 12,163.	4.0	14
44	A Comparative Study of the Proton Properties of Magnetospheric Substorms at Earth and Mercury in the Near Magnetotail. Geophysical Research Letters, 2018, 45, 7933-7941.	4.0	14
45	MESSENGER Observations of Mercury's Nightside Magnetosphere Under Extreme Solar Wind Conditions: Reconnectionâ€Generated Structures and Steady Convection. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027490.	2.4	14
46	The current system associated with the boundary of plasma bubbles. Geophysical Research Letters, 2014, 41, 8169-8175.	4.0	13
47	MESSENGER Observations of Flow Braking and Flux Pileup of Dipolarizations in Mercury's Magnetotail: Evidence for Current Wedge Formation. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028112.	2.4	13
48	Ionâ€Scale Flux Rope Observed inside a Hot Flow Anomaly. Geophysical Research Letters, 2020, 47, e2019GL085933.	4.0	13
49	Statistical properties of kinetic-scale magnetic holes in terrestrial space. Earth and Planetary Physics, 2021, 5, 63-72.	1.1	13
50	Rapid templated fabrication of large-scale, high-density metallic nanocone arrays and SERS applications. Journal of Materials Chemistry C, 2014, 2, 9987-9992.	5.5	12
51	Observational evidence of ring current in the magnetosphere of Mercury. Nature Communications, 2022, 13, 924.	12.8	12
52	High-speed flowing plasmas in the Earthâ€™s plasma sheet. Science Bulletin, 2011, 56, 1182-1187.	1.7	11
53	Statistical study of ULF waves in the magnetotail by THEMIS observations. Annales Geophysicae, 2018, 36, 1335-1346.	1.6	11
54	Pc4â€5 Poloidal ULF Wave Observed in the Dawnside Plasmaspheric Plume. Journal of Geophysical Research: Space Physics, 2019, 124, 9986-9998.	2.4	11

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55	Proton Properties in Mercury's Magnetotail: A Statistical Study. Geophysical Research Letters, 2020, 47, e2020GL088075.	4.0	11
56	Solar wind plasma entry observed by cluster in the highâ€latitude magnetospheric lobes. Journal of Geophysical Research: Space Physics, 2016, 121, 4135-4144.	2.4	10
57	Propagation properties of foreshock cavitons: Cluster observations. Science China Technological Sciences, 2020, 63, 173-182.	4.0	10
58	Flux Transfer Events at a Reconnectionâ€Suppressed Magnetopause: Cassini Observations at Saturn. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028786.	2.4	10
59	Particle-in-cell Simulations of Secondary Magnetic Islands: Ion-scale Flux Ropes and Plasmoids. Astrophysical Journal, 2020, 900, 145.	4.5	10
60	A Statistical Study of the Force Balance and Structure in the Flux Ropes in Mercury's Magnetotail. Journal of Geophysical Research: Space Physics, 2019, 124, 5143-5157.	2.4	9
61	Electron flat-top distributions and cross-scale wave modulations observed in the current sheet of geomagnetic tail. Physics of Plasmas, 2017, 24, 082903.	1.9	8
62	Largeâ€Amplitude Oscillatory Motion of Mercury's Crossâ€Tail Current Sheet. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA027783.	2.4	8
63	Braking of high-speed flows in the magnetotail: THEMIS joint observations. Science Bulletin, 2014, 59, 326-334.	1.7	7
64	Morphology inducing selective plasma etching for AlN nanocone arrays: tip-size dependent photoluminescence and enhanced field emission properties. Journal of Materials Chemistry C, 2014, 2, 2417-2422.	5.5	7
65	Oxygen Ion Reflection at Earthward Propagating Dipolarization Fronts in the Magnetotail. Journal of Geophysical Research: Space Physics, 2018, 123, 6277-6288.	2.4	7
66	The Geometry of an Electron Scale Magnetic Cavity in the Plasma Sheet. Geophysical Research Letters, 2019, 46, 9308-9317.	4.0	7
67	Low-frequency Whistler Waves Modulate Electrons and Generate Higher-frequency Whistler Waves in the Solar Wind. Astrophysical Journal, 2021, 923, 216.	4.5	7
68	MESSENGER Observations of Planetary Ion Enhancements at Mercury's Northern Magnetospheric Cusp During Flux Transfer Event Showers. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	7
69	Cluster observations of magnetic holes near the interplanetary current sheets at 1 AU. , 2011, , .		6
70	Electron Pitch Angle Distributions in Compressional Pc5 Waves by THEMISâ€A Observations. Geophysical Research Letters, 2021, 48, e2021GL095730.	4.0	5
71	Electromagnetic disturbances observed near the dip region ahead of dipolarization front. Geophysical Research Letters, 2016, 43, 3026-3034.	4.0	4
72	Thin energetic O + layer embedded in the magnetotail reconnection current sheet observed by Cluster. Geophysical Research Letters, 2016, 43, 11,493.	4.0	4

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73	Modulation of Whistler Mode Waves by Ionâ€Scale Waves Observed in the Distant Magnetotail. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027278.	2.4	4
74	Altitude of the upper boundary of AAR based on observations of ion beams in inverted-V structures: A case study. Science China Earth Sciences, 2016, 59, 1489-1497.	5.2	3
75	Models of the Earthâ€™s plasmapause position. Science China Earth Sciences, 2016, 59, 871-872.	5.2	3
76	Properties of Ionâ€Inertial Scale Plasmoids Observed by the Juno Spacecraft in the Jovian Magnetotail. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	3
77	Direct laser writing of symmetry-broken nanocorrals and their applications in SERS spectroscopy. Applied Physics B: Lasers and Optics, 2014, 117, 121-125.	2.2	2
78	THEMIS statistical study on the plasma properties of high-speed flows in Earthâ€™s magnetotail. Science China Earth Sciences, 2016, 59, 548-555.	5.2	2
79	Oxygen Ion Butterfly Distributions Observed in a Magnetotail Dipolarizing Flux Bundle. Journal of Geophysical Research: Space Physics, 2019, 124, 10219-10229.	2.4	2
80	Plasma and Magnetic-Field Characteristics of Magnetic Decreases in the Solar Wind at 1 AU: Cluster-C1 Observations. , 2014, , 553-573.		2
81	Magnetic storms in Mercuryâ€™s magnetosphere. Science China Technological Sciences, 0, , 1.	4.0	2
82	Dayside magnetopause reconnection and flux transfer events under radial interplanetary magnetic field (IMF): BepiColombo Earth-flyby observations. Annales Geophysicae, 2022, 40, 217-229.	1.6	2
83	Sensing properties of infrared nanostructured plasmonic crystals fabricated by electron beam lithography and argon ion milling. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, 06FE02.	1.2	1
84	Cluster Observations on Timeâ€ofâ€Flight Effect of Oxygen Ions in Magnetotail Reconnection Exhaust Region. Geophysical Research Letters, 2020, 47, e2019GL085200.	4.0	1
85	Plasma transport processes at the high latitude magnetosphere observed by cluster. , 2011, , .		0
86	The magnetotail current sheet movement detected by Cluster. , 2011, , .		0
87	Heating of multi-species upflowing ion beams observed by Cluster on March 28, 2001. Earth and Planetary Physics, 2019, 3, 204-211.	1.1	0